

MONITORING FIDELITY TO TREATMENT MODELS IN LONGITUDINAL RESEARCH

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The Key Challenge

This think tank focused on the issue of monitoring adherence to intervention models, and the competent delivery of interventions over the long term after an initial implementation. To date, few studies have examined the issue of fidelity to a treatment model or intervention beyond an initial training or implementation phase. Very little research exists regarding the extent to which programs are sustained over the long-term, and an even smaller body of research employs objective means of assessing the extent to which an intervention is sustained. The sustained implementation of interventions that occur at a program-level can be assessed to some extent by determining whether particular aspects of an intervention occur, or by monitoring program indicators (e.g., is the right personnel still in place? Are meetings occurring as necessary? Are there indications in charts or records that particular procedures are taking place?).

For some interventions, it may be necessary to obtain a more fine-grained assessment of the quality of the implementation and extent to which the recommended interventions or procedures occur. In clinical trials, fidelity monitoring generally occurs through direct observation, but the feasibility of observation is more limited in some implementation programs. In the existing literature, assessment of adherence to a model often occurs in the form of self-reported fidelity. Only in a few cases have self-reported measures of fidelity been validated against objective data, and some psychotherapy research has suggested that self-reports may overestimate fidelity or competence (Brosnan, Reynolds & Moore, 2008; Perepletchikova, Treat, & Kazdin, 2007)). It is important to identify the best and most feasible means of monitoring fidelity after an initial implementation to a) determine the extent to which interventions are being delivered as intended, and b) determine what level of fidelity is necessary to promote desired outcomes in practice settings.

Barriers

Barriers to objective assessment. Many barriers exist to the assessment of fidelity, particularly depending on the setting and nature of the intervention. In group therapy or educational interventions that occur at a classroom level, direct observation may be possible. In such cases, the interventionist will be aware of the observation and may not demonstrate his or her typical level of skill and adherence to the model. Instead, he or she may adhere more closely to the protocol than he or she would otherwise. This would allow for an assessment of the skill level at which the interventionist is capable of delivering the intervention, not necessarily an assessment of the typical level of fidelity. Similarly, information obtained through interviews of self-reported measures of fidelity may over-represent the extent to which procedures occur or the skill level at which they are implemented, and few have been validated.

Procedural Barriers. Clinicians may have concerns about their clients' willingness to allow their interactions to be observed, and may be reluctant to participate in research that involves observation. Although in psychotherapy training programs, clinicians grow accustomed to procedures related to recording and turning in sessions for review, once they are no longer receiving feedback, they may be less inclined to continue to turn in sessions due to time/logistic constraints, concerns about evaluation, or a lack of incentive. Researchers who have sought session recordings over follow-up have commented on lower than desired rates of compliance (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004). An alternative to direct observation is self-report, or client/caregiver/student report. Procedures for collecting such data in large scale programs may be somewhat labor intensive, unless a good system were worked out with personnel at the intervention site. Client/recipient reports of the procedures that occurred may also be perceived as burdensome.

Lack of Knowledge Regarding Adaptation. An additional challenge that was identified in the meeting is the lack of data on the extent to which specific interventions can be modified before they become less effective. Although it is commonly understood that interventions are often modified after implementation, without a full understanding of the essential components to an intervention, for many interventions, research has not been conducted to identify when interventions have been modified to a point at which they are no longer effective. Research that links modifications of interventions to outcome data is necessary to make the interpretation of fidelity assessments more meaningful.

Strategies to overcome barriers

Incentives. It is important for the interventionist to have some form of incentive to participate in follow-up/longitudinal research. Even with payment, in settings in which the workload is high and days are quite busy, the most well-intentioned participants may find that they have difficulty cooperating with procedures. This is particularly the case if multiple assessments are required. Participants in the think tank discussed the importance of ensuring that stakeholders at multiple levels received incentives or benefits for participating. One suggestion that was made in the think tank was to provide feedback after assessments of fidelity. This may incent interventionists to continue to turn in work samples or to allow/set up observations, but the feedback provided could impact fidelity throughout the "follow-up" period.

Organizational Support. Given the coordination required for the monitoring of fidelity in longitudinal research, research procedures will be executed more smoothly if there is strong organizational support, which is conveyed to participants and demonstrated to researchers through assistance with coordination at the site of the implementation. Furthermore, it may be important to potential participants that the leadership within the organization indicate that although the organization will play a role in the coordination of the research procedures, they will not be given the findings regarding individual skill or adherence. Organizational support will also ensure that data collection is set up in such a way that it is considered routine rather than disruptive.

Validated Surveys. In cases in which observation is not feasible, brief, simple self-reports or client/caregiver/student reports are an alternative. These reports must be carefully developed and validated against objective observer ratings. Although there are data to suggest that self-reports might overestimate fidelity or skill, caregiver reports

have been validated for Multisystemic therapy (Schoenwald et al., 2000). Low-burden client reports, depending on the nature of the population and the intervention, may also be an option, if carefully constructed. A participant noted that client self-report measure was used in a NIDA-funded effort to disseminate Motivational Enhancement Therapy-Cognitive Behavioral Therapy and concordance between supervisor and client ratings were good. However, the clients gave the clinicians lower ratings than the supervisors did, perhaps because the supervisors were in a position in which they shared the feedback with the clinicians.

A point that was highlighted throughout the discussion was the importance of including an assessment of the benefit to the client in the definition and monitoring of fidelity. Participants agreed that fidelity measures should be linked to outcomes, and that there should be a means of assessing extent to which the clients are able to understand and recognize the interventions.

A participant raised the potential for performance feedback (Mortenson & Witt, 1998) or self-management as means of fidelity monitoring. These strategies may have potential for long-term fidelity monitoring, and may also help maintain the desired level of fidelity.

Qualitative research to supplement other means of fidelity monitoring. Many participants suggested that it is important to accompany observation or self-report with interviews in order to learn whether modifications were made due to program-level barriers (“reactive” modifications), or due to an interventionist’s belief that the modification will improve the intervention (“proactive” modifications). In addition, interviews can help researchers assess whether interventionists are over-reporting their fidelity on self-report forms. When given the opportunity to explain why they did not implement the intervention as taught, interventionists may be more likely to acknowledge and explain instances or patterns of “drift” than they would if asked to endorse them on surveys.

Questions for future research

Many of the suggested strategies for overcoming barriers will require further research. For example, in many areas, client- caregiver-, peer-, or self-reports will need further development and validation before they can be used in lieu of objective observation. The identification of feasible, low-burden means of assessment that are closely related to outcomes is also necessary for many interventions.

Further research will also be needed to identify the specific components of interventions that are most closely linked to outcomes. Very little is known about acceptable levels and types of modification, and both qualitative and quantitative research will be necessary to increase our knowledge. A priori decisions about proactive vs. reactive modifications seem to be important in conducting qualitative research on the adaptation of interventions.

Identifying feasible methods of observation and/or collecting data that will reflect as closely as possible what is occurring in regular practice is also an important research endeavor. For example, does regular recording or observation allow the process of monitoring to become more routine and minimize the likelihood of “performance” for the sake of the researchers during follow-up? Also, would feedback at follow-up, used to incent the interventionist to participate in the research, have a significant impact on fidelity over time?

In conclusion, the participants agreed that more research needs to be done to validate assessment instruments and to identify methods of data collection that will accurately reflect the extent to which interventions are used after an initial implementations. Furthermore, the reasons for (and implications of) naturally occurring modifications warrants further research.

References

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